UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,832	04/09/2004	Rajiv K. Grover	200402482-1	1395

22879 7590 11/12/2009

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
3404 E. Harmony Road
Mail Stop 35
FORT COLLINS, CO 80528

EXAMINER	
CAO, DIEM K	

ART UNIT	PAPER NUMBER
2194	

NOTIFICATION DATE	DELIVERY MODE
11/12/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
ipa.mail@hp.com
laura.m.clark@hp.com

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/821,832
Filing Date: April 09, 2004
Appellant(s): GROVER ET AL.

Mark D. Trenner
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 7/29/2009 appealing from the Office action mailed 4/29/2009.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

7,225,242 B2	Cherian et al.	5-2007
2004/0078599	NAHUM	4-2004

Tate et al, "IBM SAN Survival Guide", IBM.com/redbooks, October 2003, pp. 160-162.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-2, 4, 6-7, 9, 11-14, 16-21, 23-24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cherian et al (US 7,225,242 B2) in view of Tate et al (IBM SAN Survival Guide).

As to claim 1, Cherian teaches a computer program product including computer-readable storage with a computer program, the computer program executing a computer process on a computer system (a method and system … in a SAN; col. 4, lines 12-15, lines 38-49), the computer process:

identifying a plurality of storage devices to be configured in a storage network (a LUN ownership map is retrieved …Storage Device Y; col. 5, lines 8-13, Storage Device X, Storage Device Y; Fig. 1 and col. 4, lines 40, lines 47-55);

identifying a number of host port Logical Unit Numbers (LUNs) which are configured on each of the storage devices (A LUN ownership map is retrieved … logical ownership over one of the LUNs in Storage Device Y; col. 5, lines 8-13 and The physical storage … logical Storage units ... logical storage unit itself … LUN; col. 4, lines 41-51);

identifying a number of host port connections to the storage devices (Each LUN 16 is logically … over multiple LUNs; col. 4, line 56 – col. 6, line 4 and Fig. 1); and

for each host port connection, determining actual loading of input/output (IO) jobs for each of the storage devices based at least in part on execution throttle level of each host that has logical ownership over a LUN of the respective storage controller (At step 22 … each storage controller of the SAN; col. 5, lines 13-39).

Cherian does not explicitly teach queue depth for each of the host port LUNs. However, Cherian teaches the server's execution throttle is the maximum number of I/O commands that a server can have outstanding, the execution throttle is typically controlled by configuration setting in the HBA device driver (col. 1, line 65 – col. 2, line 5), each LUN is logically normally owned by a single host server, as an example, Server A may have logical ownership over LUN 0001 in Storage Device X (col. 4, lines 56-61), and calculating the execution throttle level for each LUN (col. 4, lines 7-17). Tate teaches lun-queue-depth parameter for the HBA is defined as the default value lpfs will use to limit the number of outstand commands per FCP LUN, this value is global, affecting each LUn recognized by the driver, but may be overridden on a per-LUN basis (pages 161-162).

It would have been obvious to one of ordinary skill in the art, based on the definitions provided by Cherian and Tate, the queue depth for each of the host port LUN is the same as the execution throttle taught by Cherian.

As to claim 2, Cherian teaches wherein the computer process further comprises determining actual loading for each of the storage devices based at least in part on a number of host groups in the storage network (Servers (A+B+C), Servers (B+C+D+E); col. 5, lines 23-27).

As to claim 4, Cherian teaches wherein the computer process further uses a loading factor to determine if the actual loading for each of the storage devices exceeds a maximum loading (col. 5, lines 21-44).

As to claim 6, Cherian teaches a computer program product including computer-readable storage with a computer program, the computer program for executing a computer process on a computer system (a method and system … in a SAN; col. 4, lines 12-15, lines 38-49), the computer process:

identifying a plurality of storage devices to be configured in a storage network (a LUN ownership map is retrieved …Storage Device Y; col. 5, lines 8-13, Storage Device X, Storage Device Y; Fig. 1 and col. 4, lines 40, lines 47-55);

identifying a number of host port connections to the storage devices (Each LUN 16 is logically … over multiple LUNs; col. 4, line 56 – col. 6, line 4 and Fig. 1); and

for each host port connection, determining actual loading for each of the storage devices based at least in part on an execution throttle level of each host that has logical ownership over a LUN of the respective storage controller (At step 22 … each storage controller of the SAN; col. 5, lines 13-39).

Cherian does not teach queue depth for each of the host port connections. However, Cherian teaches the server's execution throttle is the maximum number of I/O commands that a server can have outstanding, the execution throttle is typically controlled by configuration setting in the HBA device driver (col. 1, line 65 – col. 2, line 5), each LUN is logically normally owned by a single host server, as an example, Server A may have logical ownership over LUN 0001 in Storage Device X (col. 4, lines 56-61), and calculating the execution throttle level for each LUN (col. 4, lines 7-17). Tate teaches lun-queue-depth parameter for the HBA is defined as the default value lpfs will use to limit the number of outstand commands per FCP LUN, this value is global, affecting each LUn recognized by the driver, but may be overridden on a per-LUN basis (pages 161-162).

It would have been obvious to one of ordinary skill in the art, based on the definitions provided by Cherian and Tate, the queue depth for each of the host port LUN is the same as the execution throttle taught by Cherian.

As to claims 7 and 9, see rejections of claims 2 and 4 above.

As to claim 11, see rejection of claim 1 above. Cherian as modified by Tate further teaches:

identifying a queue depth for each of the host port LUNs (see Cherian: execution throttle levels or command … are summed; col. 5, lines 14-17, inherently, execution throttle of each server is identified) and (see claim 1 above for teaching of LUN); and

accepting the storage device configuration if the actual loading for the storage device is no more than a maximum loading for the storage device (see Cherian: a verification test is performed to determined … storage controller; col. 5, lines 14-28 and col. 6, lines 1-4).

As to claim 12, Cherian as modified teaches wherein automatically determining actual loading for the storage device is also based at least in part on a number of host paths connected to the storage device (see Cherian: col. 5, lines 29-37).

As to claim 13, Cherian teaches wherein automatically determining actual loading for the storage device port is also based at least in part on a number of LUNs configured for the storage device (see Cherian: col. 5, lines 7-17).

As to claim 14, see rejection of claim 2 above.

As to claim 16, Cherian does not explicitly teach automatically determining actual loading for a plurality of backend LUNs connected to the storage device. However, Cherian teaches automatically determining actual loading for each of LUNs connected to the storage device. Although Cherian does not teach backend LUNs, it would have been obvious to one of

ordinary skill in the art that the system of Cherian could implement backend LUNs, and actual loading for each backend LUNs would also be determined.

As to claim 17, Cherian teaches iteratively determining actual loading for a plurality of storage devices in the storage network (execution throttle levels or command … are summed; col. 5, lines 14-17, inherently, execution throttle of each server is identified; col. 4, lines 14-28).

As to claim 18, Cherian and Tate does not teach wherein the maximum loading for the storage device is based on a loading factor for test environments. However, the maximum loading in the system of Cherian is for production environment, it would have been obvious to one of ordinary skill in the art, prior to production, test must be performed to ensure that the system will perform with minimum error, thus the maximum loading of each storage device can be obtained after testing period.

As to claim 19, Cherian does not explicitly teach wherein the loading factor is in the range of about 80% to 90% of a service queue depth for the storage device. However, Cherian teaches the loading factor must be less than the service queue depth for the storage device (col. 5, lines 17-28). Although Cherian does not explicitly teach the range of about 80%-90%, it would have been obvious to one of ordinary skill in the art that the range should not be 100% of the service queue depth, and should not be too low, thus, 80-90% would be a safe choice for the system.

As to claim 20, see rejection of claim 6 above. Cherian further teaches the number of input/output (IO) jobs being issued by a host do not exceed the queue depth of a service queue (col. 5, lines 17-28).

As to claim 21, see rejection of claim 2 above.

As to claim 23, see rejection of claim 16 above.

As to claim 24, see rejection of claim 17 above.

As to claim 26, Cherian teaches wherein device loading is a function of queue depth for each target port, number of host paths connected to the target port, and queue depth for each host port (number of servers connected to each storage device, number of LUN for each storage device, execution throttle for each server; col. 5, lines 7-28).

Claims 3, 5, 8, 10, 15, 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cherian et al (US 7,225,242 B2) in view of Tate et al (IBM SAN Survival Guide) further in view of Nahum (U.S. 2004/0078599).

As to claim 3, Cherian and Tate do not teaches wherein the computer process further comprises determining actual loading for each of the storage devices based at least in part on a number of LUN security groups in the storage network.

However, Nahum discloses a system in which LUN security groups are used (page 2, paragraph 18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of LUN security groups of Nahum's system in Cherian and Tate's invention because having LUN security groups would allow for greater reliability in assuring that all of the devices were in the storage network legally and not taking into account component that are not part of the network in calculating loading times.

As to claim 5, Cherian and Tate do not teaches wherein the computer process further simplifies host groups and LUN security groups into virtual connections for analysis.

Nahum teaches the computer process further simplifies host group and LUN security groups into virtual connections for analysis (page 2, paragraph 18).

See claim 3 above for reason to apply the teaching of Nahum to the system of Cherian and Tate.

As to claims 8 and 10, see rejections of claims 3 and 5 above.

As to claim 15, see rejection of claim 3 above..

As to claim 22, see rejection of claim 15 above.

As to claim 25, see rejections of claim 26 and 3 above.

(10) Response to Argument

I. First Rejection under 35 U.S.C. 103(a)

Claims 1-2, 4, 6-7, 9, 11-14, 16-21, 23-24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cherian in view of Tate.

1) Independent claims 1 and 6

Appellant argued that Cherian does not teach "for each host port connection, determining actual loading of IO jobs for each of the storage devices based at least in part on a queue depth for each of the host port LUNs" because execution throttle levels and potential command throughput of the servers is not the same as the actual loading for each of the storage devices (brief pages 6-7). Therefore, "the Examiner has failed to establish that independent claim is obvious in view of Hinton and Tawil."

Examiner respectfully disagrees with the arguments because:

- First, Cherian teaches the server execution throttle is the maximum number of I/O commands that a server can have outstanding (col. 1, line 65 – col. 2, line 1), each LUN of the storage device is logically normally own by a single host server (col. 4, lines 56-58), and determine the execution throttle for each server(s) that has logical ownership over the LUN (col. 5, lines 8-10 and lines 13-15).

- Second, the claim fails to define what and what can not be actual loading of I/O job. Bases on the specification (page 8, paragraph [0027] – page 9, paragraph [0029]), the actual loading of IO jobs is defined as maximum actual loading of the storage device, not the current

actual loading of I/O jobs in the storage device. Therefore, examiner interprets the execution throttle levels and potential command throughput of the servers is the same as the actual loading for each of the storage devices.

- Finally, claim 1 is rejected based on Cherian and Tate, not Hinton and Tawil.

2) Dependent claims 2 and 7

Appellant argued that Cherian does not teach the limitation of claim 2 "determining actual loading for each of the storage devices based at least in part on a number of host groups in the storage network" because the execution throttle for various servers in Cherian is not the same as determining actual loading for each of the storage devices based at least in part on a number of host groups in the storage network, and claim 7 depends on claim 6, which is believed to be allowable, therefore, claim 7 is also believed to be allowable for at least the same reasons as claim 6, in addition for the same reason as in claim 2 above. (Brief pages 7-8).

Examiner respectfully disagrees with the arguments because:

- First, please see examiner's position above (see arguments regarding claims 1 and 6 above) regarding interpretation of "actual loading for each of the storage device".

- Second, Cherian teaches determining actual loading for each of the storage devices based at least in part on a number of host groups in the storage network (Servers (A+B+C), Servers (B+C+D+E); col. 5, lines 23-27). Clearly, Cherian teaches the claimed limitation.

- Third, Appellant failed to provide any reasons/arguments why the execution throttle for various servers in Cherian is not the same as determining actual loading for each of the storage

devices based at least in part on a number of host groups in the storage network. Therefore, the arguments are not persuasive.

- Finally, claim 6 is still rejected based on Cherian and Tate, therefore, claim 7 is still rejected under the same reason as claim 6.

3) Dependent claims 4 and 9

Appellant argued that Cherian does not teach "uses a loading factor to determine if the actual loading for each of the storage devices exceeds a maximum loading" as recited in claim 4 because summing the execution throttle for various servers in Cherian is not the same as using a loading factor to determine if the actual loading for each of the storage devices exceeds a maximum loading, and claim 9 depends on claim 6, which is believed to be allowable, therefore, claim 9 is also believed to be allowable for the same reasons as claim 6 and additional reason set forth in claim 4 (Brief pages 8-9).

Examiner respectfully disagrees with the Appellant's arguments because:

- First, Cherian teaches the loading factor is the Equation 1 or Equation 2, not only summing the execution throttle for various servers as asserted by Appellant. Therefore, Cherian teaches the claim's limitations.

- Second, Appellant again failed to provide any reasons/arguments why summing the execution throttle for various servers in Cherian is not the same as using a loading factor to determine if the actual loading for each of the storage devices exceeds a maximum loading. Thus, the arguments are not persuasive.

- Third, claim 1 is still rejected based on Cherian and Tate, therefore, claim 4 is still rejected under the same reason as claim 1.

- Finally, claim 6 is still rejected based on Cherian and Tate, therefore, claim 9 is still rejected under the same reason as claim 6 and reasons as claim 4.

4) Independent claim 11

Appellant argued that examiner provided no support for the recitation "A method providing an input/output (IO) flow control mechanism in a storage network" because the recitation in claim 11 clearly is a structural difference between the claimed invention and the prior art, therefore, it was error for the Examiner to dismiss the recitation during examination. For the above reason, the Examiner has failed to establish that independent claim is obvious in view of Hinton and Tawil (Brief pages 9-10).

Examiner respectfully disagrees with the arguments because:

- First, the recitation has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

- Second, even the preamble is given patentable weight, the body of the claim already support the preamble.

- Third, Appellant fails to provide any reasons/argument that the recitation in claim 11 clearly is a structural difference between the claimed invention and the prior art. Therefore, the arguments are not persuasive.

- Finally, claim 11 is rejected under the combination of Cherian and Tate, not Hinton and Tawil.

5) Dependent claims 12-14 and 16-17

Appellant argued that claims 12-14 and 16-17 depend from claim 11, which is believed to be allowable, therefore, claims 12-14 and 16-17 are also believed to be allowable for the same reason as claim 11, and the cited reference does not teach "automatically determining actual loading for the storage device" (Brief pages 10-11).

Examiner respectfully disagrees with the arguments because:

- First, claim 11 is still rejected based on Cherian and Tate, therefore, claims 12-14 and 16-17 are still rejected under the same reason as claim 11.

- Second, Cherian teaches wherein automatically determining actual loading for the storage device (As to Equation 1, because each of server … the execution throttle of each of Server A, B, and C is summed and compared to the command queue depth of Storage Device X … Storage Device Y; col. 5, lines 29-37). Therefore, Cherian teaches the claimed limitation.

6) Dependent claim 18

Appellant argued that claim 18 depends on claim 11, which is believed to be allowable, therefore, claim18 is also believed to be allowable for the same reason as claim 11. Furthermore,

examiner dismissed the limitation "wherein the maximum loading for the storage device is based on a loading factor" (Brief page 11). Claim 19 recites "the loading factor is in the range of about 80-90% of the service queue depth for the storage device", and examiner dismisses the limitation as being obvious, thus, there is no support in the references for either of these conclusion provided by the examiner, and clearly this is nothing more than hindsight interpretation of the references in view of the claim limitations (Brief page 11).

Examiner respectfully disagrees with the arguments because:

- First, claim 11 is still rejected based on Cherian and Tate, therefore, claim 18 is still rejected under the same reason as claim 11.

- Second, text of claim 18 is "wherein the maximum loading for the storage device is based on a loading factor for test environments", not "wherein the maximum loading for the storage device is based on a loading factor". Cherian does not explicitly teach the limitation, however, Cherian teaches "the verification test is performed to determine whether the summed execution throttle value exceeds the command queue depth or command throughput of the associated controller" (col. 5, lines 17-21), and when the verification step is not satisfied for any storage controller, the execution throttle value for the server(s) is adjusted until the verification step is passed (col. 5, lines 38-67). Cherian does not explicitly teach "test environment". It would have been obvious to one of ordinary skill in the art, prior to production, test must be performed to ensure that the system will perform with minimum error, thus the maximum loading of each storage device can be obtained after testing period.

- Finally, claim 19 is not part of claim 18, therefore, the arguments are not relevant.

7) Dependent claim 19

Appellant argued that claim 19 depends on claim 11, which is believed to be allowable, therefore, claim19 is also believed to be allowable for the same reason as claim 11 (Brief page 11).

Examiner respectfully disagrees with the arguments because:

- First, claim 11 is still rejected based on Cherian and Tate, therefore, claim 19 is still rejected under the same reason as claim 11.

- Second, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning (presented in section of claim 18 above), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

8) Independent claim 20

Appellant argued that claim 20 is rejected for the same reason as claim 1 and therefore is believed to be allowable for the same reasons as claim 1 (Brief page 11).

Examiner respectfully disagrees with the arguments because claim 1 is still rejected based on Cherian and Tate, therefore, claim 20 is also rejected for the same reason as claim 1.

9) Dependent claim 21

Appellant argued that claim 21 depends from claim 20, which is believed to be allowable, therefore, claim 21 is also believed to be allowable for the same reason as claim 20, in addition, claim 21 is rejected for the same reason as claim 2, and therefore, claim 21 is believed to be allowable for the same reasons as claim 2 (Brief page 12).

Examiner respectfully disagrees with arguments because claims 20 and 2 are still rejected based on Cherian and Tate, therefore, claim 21 is still rejected for the same reasons as claim 20 and 2.

10) Dependent claim 23-24

Appellant argued that claims 23-24 depends from claim 20, which is believed to be allowable, therefore, claims 23-24 are also believed to be allowable for the same reason as claim 20, in addition, claims 23-24 are rejected for the same reason as claims 16-17, and therefore, claims 23-24 are believed to be allowable for the same reasons as claims 16-17 (Brief page 12).

Examiner respectfully disagrees with arguments because claims 20 and 16-17 are still rejected based on Cherian and Tate, therefore, claims 23-24 are still rejected for the same reasons as claims 20 and 16-17.

11) Dependent claim 26

Appellant argued that claim 26 depends from claim 20, which is believed to be allowable, therefore, claim 26 is also believed to be allowable for the same reason as claim 20 (Brief page 12).

Examiner respectfully disagrees with arguments because claim 20 is still rejected based on Cherian and Tate, therefore, claim 26 is still rejected for the same reasons as claim 20.

II) Second Rejection under 35 U.S.C. 103(a)

Claims 3, 5, 8, 10, 15, 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cherian in view of further in view of Nahum.

1) Dependent Claim 3

Appellant argued that claim 3 depends from claim 1, which is believed to be allowable, therefore, claim 3 is also believed to be allowable for the same reason as claim 1. In addition, Nahum does not teach "determining actual loading for each of the storage devices based at least in part on a number of LUN security groups in the storage network" because Nahum describes a security procedure for authenticating each host (Brief page 13).

Examiner respectfully disagrees with arguments because:

- First, claim 1 is still rejected based on Cherian and Tate, therefore, claim 3 is still rejected for the same reasons as claim 1.

- Second, Cherian does not explicitly use the term "LUN security groups in the storage network", however, the specification defines the "LUN security groups" as "Generally, a LUN security group includes a set of LUNs which are configured for a particular host or host group. LUN security groups may be implemented to separate access to areas of the storage device 450, e.g., for security purposes" (specification, pages 15-16, paragraph [0046]). Cherian teaches "each LUN is assigned to just one network server" (col. 5, lines 1-2). Thus, based on the definition

given by the specification, the LUN group in the system of Cherian might qualified as LUN security group. The reference of Nahum is used to show LUN security groups are implemented in the storage device (There is provided … method for securing a host with at least one HBA … and identified by a second WWN and by at least one LUN (Logical Unit Number); page 2, paragraph [0018]). Therefore, the combination of Cherian, Tate and Nahum teaches the claim's limitation.

2) Dependent Claims 5 and 10

Appellant argued that claim 5 depends from claim 1, and claim 10 depends from claim 6, which is believed to be allowable for claims 1 and 10, therefore, claims 5 and 10 are also believed to be allowable for the same reasons as claims 1 and 6, respectively. In addition, Nahum does not teach the limitation "the computer process further simplifies host groups and LUN security groups into virtual connections for analysis" (Brief page 14).

Examiner respectfully disagrees with the arguments because:

- First, claims 1 and 6 are still rejected based on Cherian and Tate, therefore, claims 5 and 10 are still rejected for the same reasons as claims 1 and 6.

- Second, Nahum teaches "There is provided yet further a method for securing a host with at least one HBA which is identified by a first WWN (World Wide Number), and a storage device comprises at least one LU (logical unit), and identified by a second WWN and by at least one LUN (Logical Unit Number). The security procedure authenticates each one host out of the first array independently of the first WWN, and identifies each one storage device out of the

second array by the second WWN and by the at least one LUN" (page 2, paragraph [0018]). Clearly, the combination of Cherian, Tate and Nahum teach the claim's limitation.

3) Dependent Claims 8, 10 and 15

Appellant argued that claims 8 and 10 depends from claim 6, and claim 15 depends from claim 11, which is believed to be allowable for claims 6 and 11, therefore, claims 8, 10 and 15 are also believed to be allowable for the same reasons as claims 6 and 11, respectively

Examiner respectfully disagrees with the arguments because claims 6 and 11 are still rejected based on Cherian and Tate, therefore, claims 8, 10 and 15 are still rejected for the same reasons as claims 6 and 11.

4) Dependent Claim 22

Appellant argued that claim 22 depends from claim 20, which is believed to be allowable, therefore, claim 22 is also believed to be allowable for the same reasons as claim 20.

Examiner respectfully disagrees with the arguments because claim 20 is still rejected based on Cherian and Tate, therefore, claim 22 is still rejected for the same reasons as claim 20.

5) Dependent Claim 25

Appellant argued that claim 25 depends from claim 20, which is believed to be allowable, therefore, claim 25 is also believed to be allowable for the same reasons as claim 20. In addition, claim 25 was rejected on the same basis as claims 3 and 26, and therefore, claim 25 is also believed to be allowable for the same reasons as claims 3 and 26.

Examiner respectfully disagrees with the arguments because claim 20 is still rejected based on Cherian and Tate, therefore, claim 22 is still rejected for the same reasons as claim 20. In addition, claims 3 and 26 are still rejected, and therefore, claim 25 is also rejected for the same reason as claims 3 and 26.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Diem Cao

October 28, 2009

Conferees:

Diem Ky Cao, Primary Examiner Art Unit 2194

/Diem Ky Cao/

/Hyung S. Sough/
Supervisory Patent Examiner, Art Unit 2194
11/03/09

/Lewis A. Bullock, Jr./
Supervisory Patent Examiner, Art Unit 2193